Notes on *Melitaea cinxia* L. 1945-1968

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I had started active collecting again in early 1943. As many specimens in my boyhood collection had suffered from various pests, replacements were necessary and I was taking a short series of many species.

In late May 1943 I was collecting at Waterditch, near Christchurch. This is a pleasant green lane which at one point is crossed by the main Bournemouth-Southampton railway line. Within a few yards of the embankment I took a brown butterfly which I thought was *Pararge megera* L. while in flight. I was to find that it was in fact a perfect *Melitaea cinxia* L. It was the first I had seen alive and at this time I was unaware of its existence in the mainland. However more about this later.

In 1945 I decided to visit the Isle of Wight to collect larvae in order to breed a series.

I had no detailed knowledge of localities and consultation with various local entomologists did not produce the required information. However, one sunny morning in early April I set off with my wife from Lymington on the 7.30 a.m. ferry. As no petrol was available we took our tandem. This first voyage up the Lymington river was an occasion never to be forgotten. The sea was dead calm and as the great red ball of the rising sun dispersed the mists over the marshes, thousands of seabirds rose from the mudbanks as miniature tidal waves from the passage of the ferry invaded their territory. As the sun gained power the morning sky changed through the most exquisite tints of pale green to azure blue, flecked with rose and orange tinted clouds set in a pattern which no pen can adequately describe. I have made this journey many times since but the magic of that first visit has never been recaptured.

On arrival at Yarmouth we set off on the north coast road without really knowing where we were going. On taking several looks at the coast through various bridle paths we found a few larvae of *Lasiocampa quercus* L. but no sign of either *cinxia* or the foodplant. It was now mid-morning and as the return ferry was uncertain I decided that more detailed detective work was necessary if the desired results were to be achieved. We therefore enquired at the office of the local newspaper if they had any knowledge of either the butterfly or any local entomologists. They were most helpful and gave me the name of a local naturalist and taxidermist, a Mr. Jefferies I believe. This gentleman was a coleopterist but was able to direct us to Compton Bay where he had seen *cinxia* some years previously.

Our journey continued through green lanes with untrimmed verges on which grew a profusion of flowers. This was before the days of weed killers and tidy fanatics with mowing machines. In due course we arrived at Brook and after parking the tandem we walked to the edge of the cliff and looked over. Never before had I seen so many caterpillars. The foodplant was covered with a black moving mass. I lay on the short turf and picked up a handful. The combination of red head and legs together with the shiny black coat make *cinxia* a delightful larva and one of my favourites.

We collected 800 in a few minutes and could not see where we had taken them from. In either direction, towards Chale and Freshwater larvae swarmed in countless thousands. Adders too were numerous

and we nearly trod on several. Larvae of *L. quecus* L. and *P. potatoria* L. abounded on the low brambles and grass a hundred yards from the cliff edge.

Larvae of *Arctia villica* L., some nearly full grown, were not uncommon. Parisitation was very heavy in this species.

So ended the first excursion after *cinxia* larvae and the return journey by ferry was a fitting climax.

On the return the first problem was to find plantain, which we grow now on our special frames. The plants are dug up with a small fork and placed in the cages at one end. Each day a few more plants are inserted until the first are eaten down.

When collecting larvae it is advisable to take only the largest, the smaller ones seldom grow and many are parasitized. In 1945 there were very few parasites and over 600 adults emerged successfully including a number of good forms, some uppersides being very lightly marked and the black markings in the undersides white band being greatly enlarged.

After emergence the insects had to be returned. We made two journeys successfully and returned over 500. On the third journey we were not allowed to land for some obscure reason and had to consider the fate of a further 100 or so specimens. Our friend F. S. Reeves had a further number which could not be returned. We therefore decided to find a suitable locality on the mainland to release them and eventually decided on the railway embankment between Holmesley and Brockenhurst. Releases were made on some 1½ miles of this embankment and Fred Reeves released his near the derelict keeper's cottage at Stillwells Lane.

The colony on the railway embankment flourished until 1967 when the railway line was removed and a new road built. It appears that the remains of poor *cinxia* now lie buried beneath hundreds of tons of earth and gravel.

The colony at Stillwells Lane did not survive for long owing to the growth of scrub in the clearing.

In 1947 the late C. B. Antram reported a colony of *cinxia* on the railway embankment west of Sway Station on the main Bournemouth-Southampton line; I never saw this colony but understood it was quite strong. I consider that there could well be a connection between this colony and the other specimens mentioned earlier in this paper. The distance is about 8 miles and there are probably other colonies hitherto undiscovered between Sway and Christchurch.

From 1945 to 1968 we bred 500-2000 each year. In 1950 the Brook colony began to weaken due to the near disappearance of the foodplant. After the extermination of the rabbits in 1954 by myxamatosis the coarse grass took control and *cinxia* became extinct. This meant releases being made further along the coast, care having to be taken to ensure that no area became overpopulated beyond the capacity of the foodplant to support a reasonable number.

It now seems that we have arrived at a balance. One notable year was 1966. We decided to take the car and make a day of it touring the island. On arrival we parked the car and walked to the cliff edge when it started to rain. There was only one course, to collect the larvae as soon as possible. We picked them up in spoonfulls and in twenty

minutes had 1695. We were back at Boldre by 1 p.m. Of these, 1294 were subsequently returned and many fine underside forms were retained. These resembled those bred in 1945 but the black markings were much heavier.

These were duly exhibited at the South London Exhibition.

What of the status of *cinxia* generally in the island? Collectors visiting many of the old localities will find it greatly reduced in numbers, or absent altogether. The foodplant no longer flourishes, being choked with the coarse grass and brambles which were previously kept in check by the rabbits.

However, if one is prepared for a walk of several miles, *cinxia* can still be observed in thousands. The island coast is subject to constant erosion, and cliff falls are numerous. I have often seen masses of larvae in positions inaccessable except for a climber with suitable ropes.

In my opinion there is no danger to this species in the foreseeable future but larvae should not be taken in numbers unless the imagines can be returned.

"Porcorum," Sandy Down, Boldre, Lymington.

Discovery of the Larva of *Sorhagenia rhamniella* Zeller

By Lieut.-Col. A. M. Emmet, M.B.E., T.D.

Writing in 1966 (*Ent. Rec.*, **78**: 9) Mr. S. Wakely summed up the information then existing about the three species of *Sorhagenia,* and his article should be read as an introduction to these notes. He described the larval habits of *S. lophyrella* Douglas and *S. janiszewskae* Reidl but stated that the early stages of *S. rhamniella* Zeller were still unknown In 1966 Wakely and I twice visited Wicken Fen to search for larvae of this species, our visits being on the 19th of May and the 8th of June. On the first occasion we found the larvae of *lophyrella* plentiful on common buckthorn (*Rhamnus catharticus* L.) but *rhamniella* eluded us. I was convinced that the trouble was that we were too early, and resolved to search again later in the season when opportunity offered. The chance came this year, when I was able to visit the Fen on the 18th of June. I concentrated my attention on the alder buckthorn (*Frangula alnus* Mill.) and in due course found an area where there was a number of spinnings on the tender terminal leaves. I collected over a dozen, but my breeding efforts were handicapped by illness which prevented me from renewing the foodplant. Nevertheless, from this material I had two *rhamniella* on the 7th and 9th of July, and three *Ancylis apiciella* Schiff. between the 4th and 14th of July. Probably only the most advanced larvae survived.

The life-histories of the three *Sorhagenia* species may be summarised as follows:—

S. lophyrella Dougl. As far as is known, it is confined to *Rhamnus catharticus*. The larva feeds in mid-May in the terminal shoots, spinning leaves together. The moths emerge in mid-June. This appears to be the commonest of the three and probably has the widest distribution. Most *Sorhagenias* in collections are likely to belong to this species.

S. janiszewskae Reidl. The larva feeds on the pith of the terminal